

## Homogeneous solutions of the Einstein equations with an ideal charged fluid

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### Abstract

The space-times  $V_4$  with an ideal charged fluid as source allowing the motion group  $G_r$ ,  $r \geq 4$ , are investigated. It is assumed that the fluid velocity vector is directed along the timelike vector of the Killing group. In the case of groups  $G_4$ , acting on  $V_4$ , as well as groups of higher mobility, a complete investigation is performed of the space-times by using the system of Einstein-Maxwell equations. Exact solutions are found with fourth- and fifth-order groups. © 1985 Plenum Publishing Corporation.

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